AGC/WSDOT Structures Team Minutes
April 28, 2006
Members in Attendance

Attendees:	Company:	Phone:	E-mail:
Casey Daniel	KLM Const.	253-297-2750	dcasey@klmci.com
Case, Derek	WSDOT-NWR	425-433-2002	cased@wsdot.wa.gov
Foster, Marco	WSDOT-NWR	360-757-5999	fosterm@wsdot.wa.gov
Hilmes, Bob	WSDOT-ER	509-324-6232	hilmesb@wsdot.wa.gov
Kapur Jugesh	WSDOT HQ	360-705-7209	kapurju@wsdot.wa.gov
Madden, Tom	WSDOT UCO	206-768-5861	maddent@wsdot.wa.gov
McCoy, Charlie	Atkinson Const.	425-255-7551	charlie.mccoy@atkn.com
Olson, Ryan	Mowat Const.	425-398-0205	ryan.olson@mowatco.com
Parrish Kevin	Hamilton Const.	541-746-2426	kparrish@hamil.com
Quigg John	Quigg Bros.	360-533-1530	johnq@quiggbros.com
Schmidt, Virgil	WSDOT-HQ	360-705-7825	schmidv@wsdot.wa.gov
Sheikhizadeh, M.	WSDOT-HQ	360-705-7828	sheikhm@wsdot.wa.gov
Schettler Jim	Jacobs Civil	206-382-6322	schettj@wsdot.wa.gov
Smith Tobin	Max J. Kuney	509-535-0651	tobin@maxkuney.com
Swenson Robb	Kiewit General	360-394-1407	Robb.Swenson@kiewit.com
Weckerlin Tim	Kiewit Const.	425-255-8333	Tim.Weckerlin@kiewit.com
Welch Pete	Wilder Const.	425-551-3100	petewelc@wilderconstruction.com

Other WSDOT people in attendance:

Patrick Clarke	WSDOT Structures Office
Bill Hegge	WSDOT Geo-Technical Office
Ahmer Nizam	WSDOT Railroad Liaison
Chris Dean	Wilder Const.

The meeting started at 9:00 AM.

1. Manette Bridge Cofferdam Constructability

Patrick Clarke and Bill Hegge discussed the upcoming construction job in Bremerton to replace the Manette Bridge. This bridge was built in 1930 and later rebuilt in 1949; it crosses the Port Washington Narrows in the city of Bremerton. The existing bridge has had problems with scour around the bridge piers caused by the tidal action in the area; heavy rip rap has been dumped over time around the footings. The main point of discussion with the committee was how the demolition of the existing piers and footings could be accomplished.

The water depth around the piers ranged from 10 feet of water to 70 feet of water at the main navigation channel. The environmental agencies want all of the demolition work to be accomplished in coffer dams to minimize the contact between the state waters and the

demolition waste. This could be accomplished but would be slow work and the cofferdams would be difficult to construct because of the water depth, the existing currents, and the hard material present making cofferdam installation difficult. The cofferdam would most probably not be dewatered and anchors would have to be placed to hold the cofferdam in position during the tidal rush. The existing footings and piers would have to be removed. This could be accomplished by either cutting with a wire saw or breaking the pier and footing up with a breaker or muncher.

The environmental work window in this part of the sound is from mid July until mid March, and there are 9 piers to remove in the water. The contractors thought it would require at least three weeks to place a cofferdam around each pier and take a minimum of two months to remove a pier if no problems encountered. Multiple cofferdams and barges with cranes would be necessary to accomplish this removal in one season. Blasting of the concrete with explosives isn't a viable option. Turbidity during placement of frame piles and sheets would also be a concern. If timber is encountered, significant delays due to cutting or sawing through them can be expected. Pete mentioned that the frame and sheet option was tried by Wilder in Alaska with some success.

Most contractors thought that if the piers and footings could be broken up without the requirement of cofferdams being installed and then to remove all of the debris by clamming it out, a significant amount of time and money could be saved.

Action Item: No further action by the committee is necessary on this item.

2. Railroad Permitting Process

Ahmer of the Design office, the Railroad Liaison Engineer, gave a brief presentation on the Railroad Permitting Process. Currently there are two class 1 railroads in the state, BNSF and UPRR the rest of the trackage is short haul railroads. BNSF has 75 percent of the trackage with UPRR having the remaining 25 percent. The BNSF currently has one person working on agreements with the DOT. The BNSF person also has other duties, and is responsible for writing agreements in Oregon, Idaho, Montana, and British Columbia. Currently, the review process takes 31 weeks. Once the agreement is written it takes an additional 6 to 9 weeks to execute the agreement. This process has in the past delayed projects from their add dates and it is currently impacted some of our design build projects. Feed back from the Team:

- Get bridge piers away from the tracks to lessen impacts
- WSDOT offer to fund a position with the Rail Road to speed up the review process
- Show pre-approved shoring designs on the plans

Ahmer was asked what the contractors could do to improve the process. He replied: AGC should establish a good relationship with the local BNSF. The BNSF prefer limited number of entities to deal with.

Action Item: For exchange of information**.** No further action on this item in the committee.

The March meeting minute were reviewed and approved.

3. Standard Work Bridge Details for Permit Acquisition

Mo handed out some standard work bridge details that the state was considering putting in the plans and also getting permits from the environmental agencies for this type of work trestle. These general work trestle plans showed two piles per pier with one additional battered pile and a typical span length of 20 to 40 feet. If fewer piles were necessary to install the work bridge or fewer piles were necessary to build the bridge the permitting agency should be agreeable. Comments expressed were:

- This plan addresses the trestle geometry. Additional room for a lay down area or a place to tie up barges to the work trestle may be necessary
- Identify if shadowing is a problem and if allowing lighting through the decking is needed
- Would any mitigation for piling installation be required
- Show key design elements while allowing latitude for the contractor
- Show geometry, minimum trestle elevation, 100 year water elevation
- Develop a check list for the designer

This was something that WSDOT would be place in the plans as the work trestle that the job had been permitted with, but the contractor would have to design his own trestle to accommodate the size of equipment and operation

Action Item: Mo will update the plan for the next meeting

4. Use of Maturity Meters, Report from the Field

Several contractors discussed their use of the maturity meter to monitor cold weather curing of concrete. Most of the contractors like the use of the maturity meter because it eliminated a lot of the arguing about placement of the temperature probes and some valuable information was gained like the intermediate diaphragms were more susceptible to heat loss than most of the contractors had thought. Also, the heat of hydration of the cement created enough heat for curing for about 7 or 8 days; then if it was very cold, external heat had to be applied to get the concrete up to 50 degrees. The Specs in the future will allow the use of a recording thermometer in lieu of the maturity meter.

Action Item: Modify standard specification to allow recording thermometers in addition to maturity meters.

Action Item: Bridge Deck Diamond Grinding and Std. Spec-Section 6-02.3(24) were both deferred until the next meeting to discuss.

5. Field Bending Girder Stirrups

Bob Hilmes gave a short presentation on how their iron workers had bent their girder stirrups using a hickey bar with a roller in it and placing a pipe on the girders to act as a mandrel to bend the stirrups around.

Action Item: For exchange of information. No action needed.

6. Good of the Order

Mo said that the Centralia power plant was shut down until early July so they aren't producing any fly ash. Therefore there isn't enough fly ash to put in our mix designs for 4000D, CDF, or 4000P and the concrete suppliers will shortly be running out of fly ash all together. WSDOT will allow the use of ground granulated blast furnace slag instead of fly ash in the mix designs.

WSDOT will also allow other mix designs that don't have fly ash in the future. Hamilton Construction said Oregon was having the same problem and would like a copy of our instructional letter allowing the use of other mix designs.

The meeting was adjourned at 12 noon.

The next meeting will be May 19th.